

OOQ Inspection Protocols, Applications & Results

For the **Operator Qualification Rules**
49CFR Parts 192 (Subpart N)





Why is OQ so Important???

Recent Headlines:

**“Supervisors sentenced for
deadly 1999 pipeline blast”**

[relating to the Bellingham, WA liquid Pipeline Accident]



**“Rescue Workers Sue Gas
Company”**

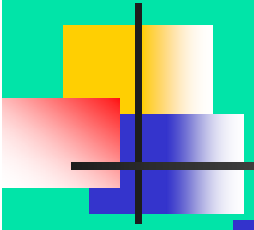
*relating to the
Carlsbad, NM natural gas
Pipeline Incident]*





Why is OQ so Important???

- The National Transportation Safety Board and Congress are Requiring both Operators and OPS to Achieve a Higher Level of Safety Performance –
- Structured Inspection Protocols permit OPS to Evaluate and Compare Operator's OQ Programs Fairly and Impartially

- 
- You've carefully thought out all the angles.
-

- You've done it a thousand times.

- It comes naturally to you.

- You know what you're doing, its what you've been trained to do your whole life.

- Nothing could possibly go wrong, right ?

Think Again !!!





Presentation Content

- Review History ~ Anticipate Future
- Approach to Inspections
- Discuss Protocols Approach
- Summarize Experiences from Early Inspections



Staying Current

- <http://primis.rspa.dot.gov/oq/index.htm>
- <http://www.tsi.dot.gov/divisions/pipeline/pipeline.htm>



"OOQ-1" History

- **Negotiated Rulemaking** Produced Rules
- Rules Published 08/27/99 (Required all Individuals Performing Covered Tasks to be Qualified by 10/28/02)
- NTSB Announced that Rule was Insufficient to Support Satisfactory Closure of OOQ Issue
- OPS Initiated **"OOQ-2"**



"OOQ-2" History

- **OOQ-2** Included:
 - Revisiting OQ Expectations
 - Preparation of Inspection Protocols
 - Development of FAQ's
 - Communication through Web Site



OOQ-2 History (Cont'd)

- **OOQ-2** Led to:
 - Industry Concern Re: Expansion of the Rule
 - Clarification of Related Issues
 - Series of Public Meetings to Discuss Issues



OOQ-2 History (Cont'd)

- Congress Weighs-In (PSIA-2002)
 - OQ Standards and Criteria Must be in Place by 12/17/03
 - Regulators Must Complete Initial Inspections of all Operators by 12/17/05
 - Pilot Program for Certification of Pipeline Controllers must be Completed by 12/17/05



OOQ-2 History (Cont'd)

- Congress Weighs-In (PSIA-2002)
 - Operators must provide TRAINING, as appropriate, to provide individuals with necessary knowledge and skills
 - Failure of OPS to act does not excuse Operators from requirement to comply
 - “Significant” modifications to the Operator’s OOQ program must be communicated to OPS



Public Meetings Conducted OQ-2 History (Cont'd)

- January 2003
San Antonio
- February 2003
Houston
- March 2003
Phoenix
- April 2003
Atlanta
- Industry raised some concerns in 1st meeting that have been collected into "Thirteen OQ Implementation Issues"
- Subsequent meetings have resolved most; rest to be addressed in a new consensus "standard"



OOQ-2 History (Cont'd)

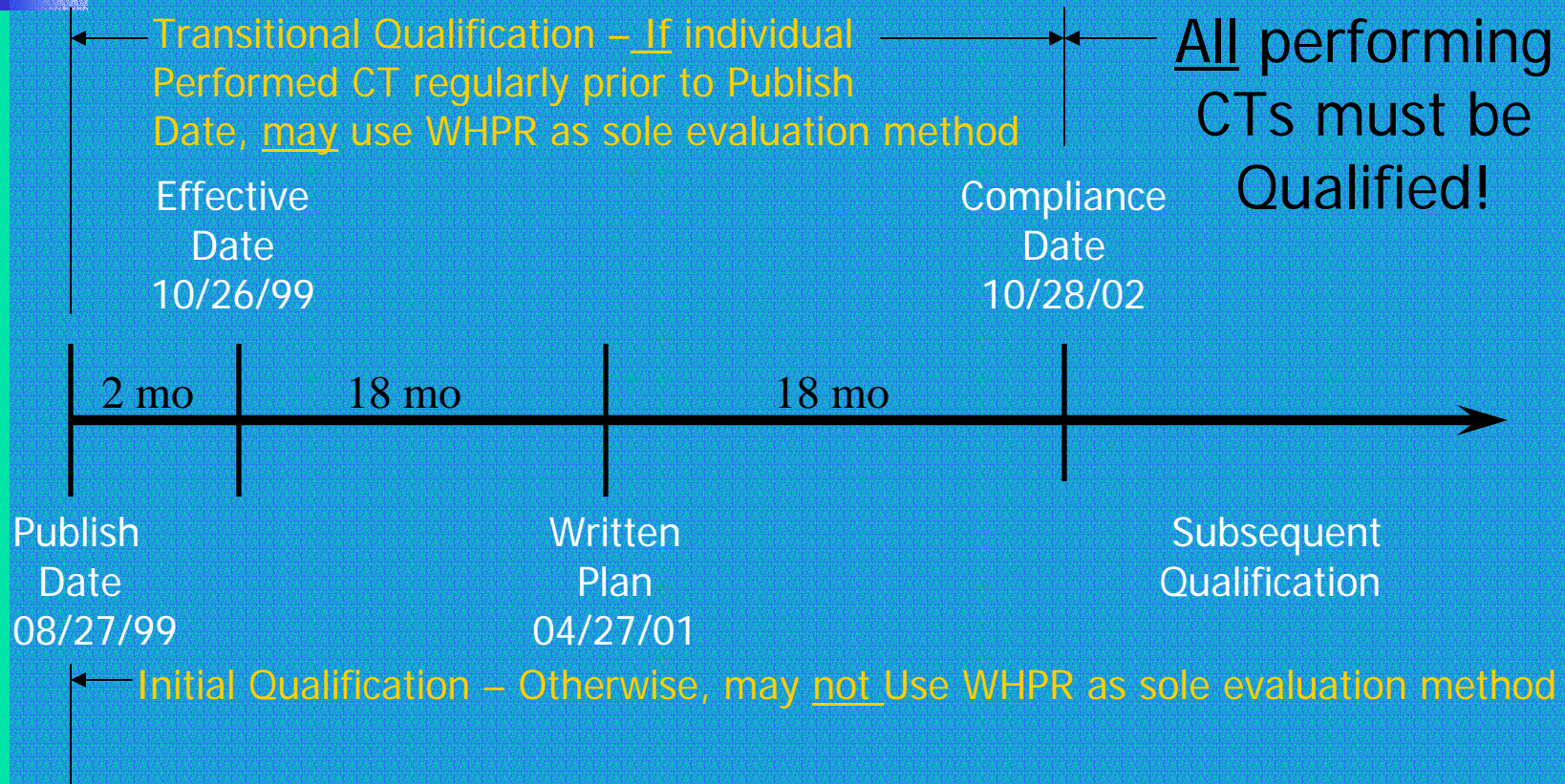
- Post-Public Meeting Events
 - Some Issues Resolved, Some Deferred To National Consensus Standard
 - ASME B31Q Initiated
 - Inspections Resumed Based on Updated Protocols (Reflecting Resolution of Issues)



Likely Future Events (OOQ-3)

- Near-Term Issuance of Focused Supplementary Rule
 - Documentation of Role of Training
 - Support for Reevaluation Interval
 - Reporting of "Significant Changes"
- Publication of B31Q
- Supplementary Rulemaking Based on Standard

Qualification Timeline





Problem: Word Definitions

49 CFR Part 192 Subpart N

Qualification of Pipeline Personnel

Sec. 192.801 Scope. (a) This subpart prescribes the minimum requirements for **operator** qualification of **individuals performing** on a **pipeline facility**.

(b) For the purpose of this subpart, a **covered task** is an **activity**, identified by the **operator**, that:

- (1) Is **performed** on a **pipeline facility**;
- (2) Is an **operations** or **maintenance task**;
- (3) Is **performed** as a requirement of this part, and
- (4) **Affects the operation or integrity of the pipeline.**



Problem: Word Definitions

Sec. 192.803 Definitions.

Abnormal operating condition means a condition identified by the **operator** that may indicate a malfunction of a component or deviation from normal **operations** that may:

- (a) Indicate a condition exceeding design limits; or
- (b) Result in a hazard(s) to **persons**, property, or the environment.

Evaluation means a **process**, established and documented by the **operator**, to **determine** an **individual's ability** to **perform** a **covered task** by any of the following:

- (a) **Written** examination;
- (b) Oral examination;
- (c) Work **performance** history review;
- (d) **Observation** during:
 - (1) **Performance** on the job,
 - (2) On the job **training**, or
 - (3) Simulations;
- (e) Other forms of assessment.



Problem: Word Definitions

Qualified means that an **individual** has been evaluated and can:

- (a) **Perform** assigned **covered tasks**; and
- (b) Recognize and react to **abnormal operating conditions**.

Sec. 192.805 **Qualification program**. Each **operator** shall have and follow a **written** qualification **program**. The **program** shall include **provisions** to:

- (a) **Identify covered tasks**;
- (b) Ensure through **evaluation** that **individuals performing covered tasks** are **qualified**;
- (c) Allow **individuals** that are not **qualified pursuant** to this subpart to **perform a covered task** if **directed** and observed by an **individual** that is **qualified**;



Problem: Word Definitions

- (d) Evaluate an **individual** if the **operator** has reason to believe that the **individual's performance** of a **covered task** contributed to an **accident** as defined in Part 195;
- (e) Evaluate an **individual** if the **operator** has reason to believe that the **individual** is no longer **qualified** to **perform** a **covered task**;
- (f) **Communicate** changes that affect **covered tasks** to **individuals** performing those **covered tasks**; and
- (g) **Identify** those **covered tasks** and the intervals at which **evaluation** of the **individual's** qualifications is needed.



Problem: Word Definitions

Sec. 192.807 Recordkeeping. Each **operator** shall **maintain records** that **demonstrate compliance** with this subpart.

(a) Qualification **records** shall include:

- (1) Identification of **qualified individual(s)**;
- (2) Identification of the **covered tasks** the **individual** is **qualified** to **perform**;
- (3) Date(s) of **current** qualification; and
- (4) Qualification method(s).

(b) **Records** supporting an **individual's current** qualification shall be **maintained** while the **individual** is **performing** the **covered task**. **Records** of **prior** qualification and **records** of **individuals** no longer **performing covered tasks** shall be **retained** for a period of five years.



Problem: Word Definitions

Sec. 192.809 General.

- (a) **Operators** must have a **written** qualification **program** by April 27, 2001.
- (b) **Operators** must complete the qualification of **individuals performing covered tasks** by October 28, 2002.
- (c) **Work performance history review** may be used as a sole **evaluation** method for **individuals** who were **performing a covered task** prior to October 26, 1999.
- (d) After October 28, 2002, work **performance** history may not be used as a sole **evaluation** method.

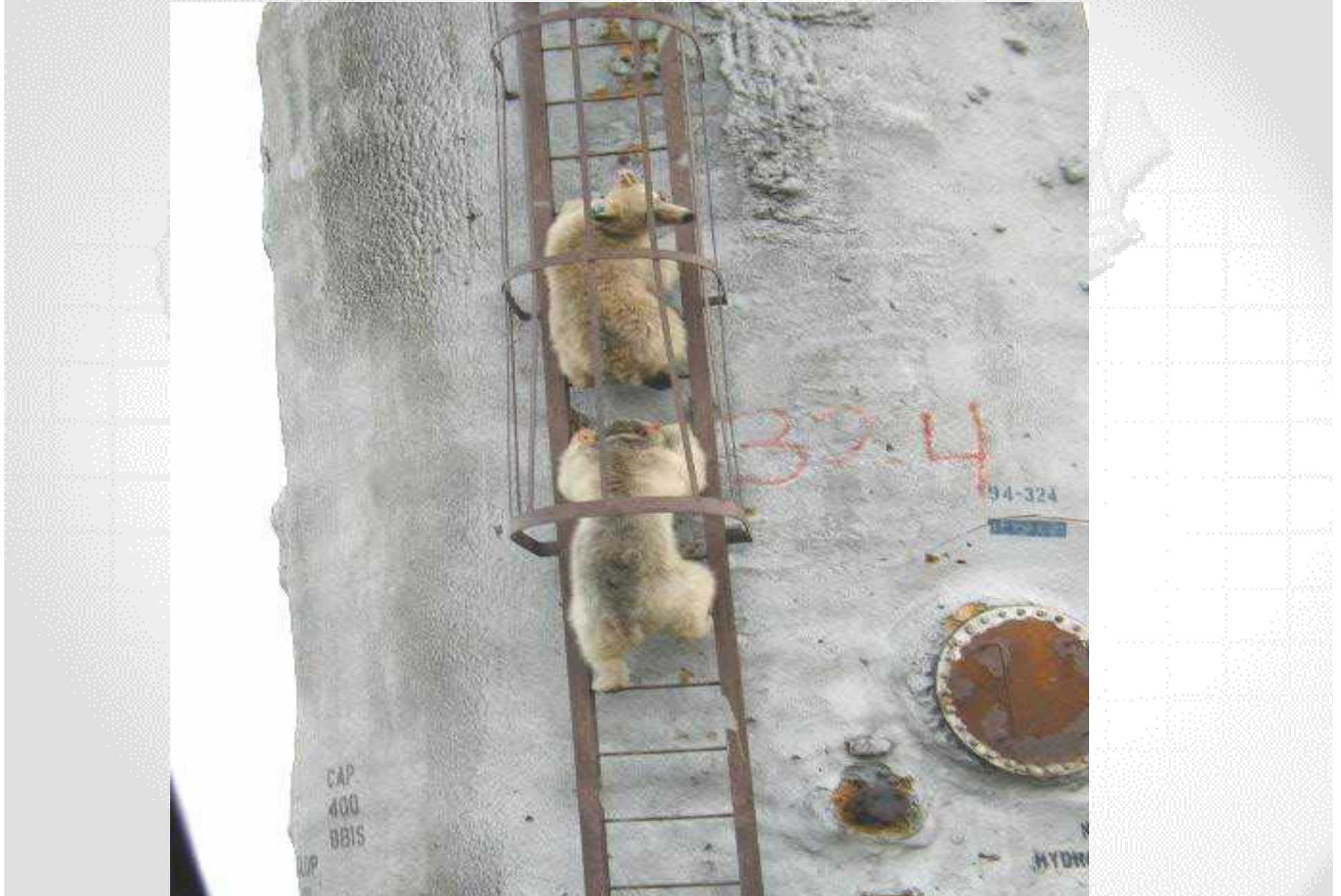


Key Areas Addressed by Rule

Relative importance of “key” words:

- **INDIVIDUAL(S)** Used 19 times
- **PERFORM (variations)** Used 19 times
- **COVERED TASK(S)** Used 16 times
- **OPERATOR(S)** Used 10 times

Other Entities Performing Covered Tasks





Inspection Approach

- Operators Submitted **Program** and **Covered Task List** for Review Prior to Inspections
- Inspections (typically) began with Operator Presenting its **OQ Program**
- Regulators Worked Through Inspection Protocols and Follow-up Questions



Inspection Approach

- Regulators Provided Comments on Plan Wording, Structure, etc.
- Regulators **Caucused** to Identify Additional Questions and “Findings”
- Operators Provided Responses to Additional Questions
- Regulators Led Exit Discussion on Findings



Follow-Up to HQ Inspections (Field Verification)

- **Field Verifications** are Conducted to verify Findings of Headquarters Program Inspection (most have been delayed beyond HQ Inspection)
- Depending on HQ Findings, Regulators will Plan more or less Extensive Field Verifications

Follow-Up to HQ Inspections (Field Verification)



- Field Verifications are Focused on
 - Reviewing Qualification Documentation (for both Employees and Contractors)
 - Observing Employee Performance of Covered Tasks According to Operator's Approved Procedures, and Verifying Qualifications and Knowledge of AOC's
- Field Verification may be Integrated with Standard Inspections

Anticipated Communication from Regulators



- As Allowed, HQ Inspection Reports will be Provided to States having Jurisdiction over Lines Covered by Operator's Program
- Jurisdictional States will be Encouraged to Rely on these Program Evaluations and Perform only Field Verifications

Anticipated Communication from Regulators



- Formal Communication may Follow both **Program Inspection** and **Field Verification** or may be sent Separately
- Formal Communication may Include Inspection Follow-Up Requests for Information, or Enforcement Action

Observations from Initial Inspections: Process



- Initial, **Thorough**, Presentation by Operator of its OQ Program Helps to Focus Inspection
- Use of Flow Diagrams (Showing how OQ Processes Work) Contributes to Regulator's Understanding of Program

Observations from Initial Inspections: Process



- Easy Access to Supporting Documentation and Evidence of Program Implementation
Expedites Inspection
- Operator **Attitude** Sets the Tone for the Inspection



Enforcement of the OQ Rule

- Significant Efforts Underway to Ensure **Consistency** of Inspections
- Enforcement of Rule may Vary among Federal and States Authorities
- OPS will Utilize all Available Enforcement Tools to Address Inadequate Plans, Records, and Compliance with the Rule, Including:
 - Notice of Amendment (NOA)
 - Notice of Probable Violation (NOPV)
 - Proposed Compliance Order (PCO)
 - Proposed Civil Penalty (PCP)



Statement on the Role of OQ Protocols

- Nature of the Rule
- OQ Rule is Performance-Based,
which Implies a Need for
 - Management Practices & Procedures
 - Measurement of Program Effectiveness



Statement on the Use of OQ Protocols

- Nature of the Rule – Cont'd
 - Inspectors Will Evaluate Compliance with the Rule's Prescriptive Provisions - and
 - Will Evaluate the Completeness and Anticipated/Apparent Effectiveness of the Documented Approaches Taken to Qualify Individuals



Statement on the Use of OQ Protocols

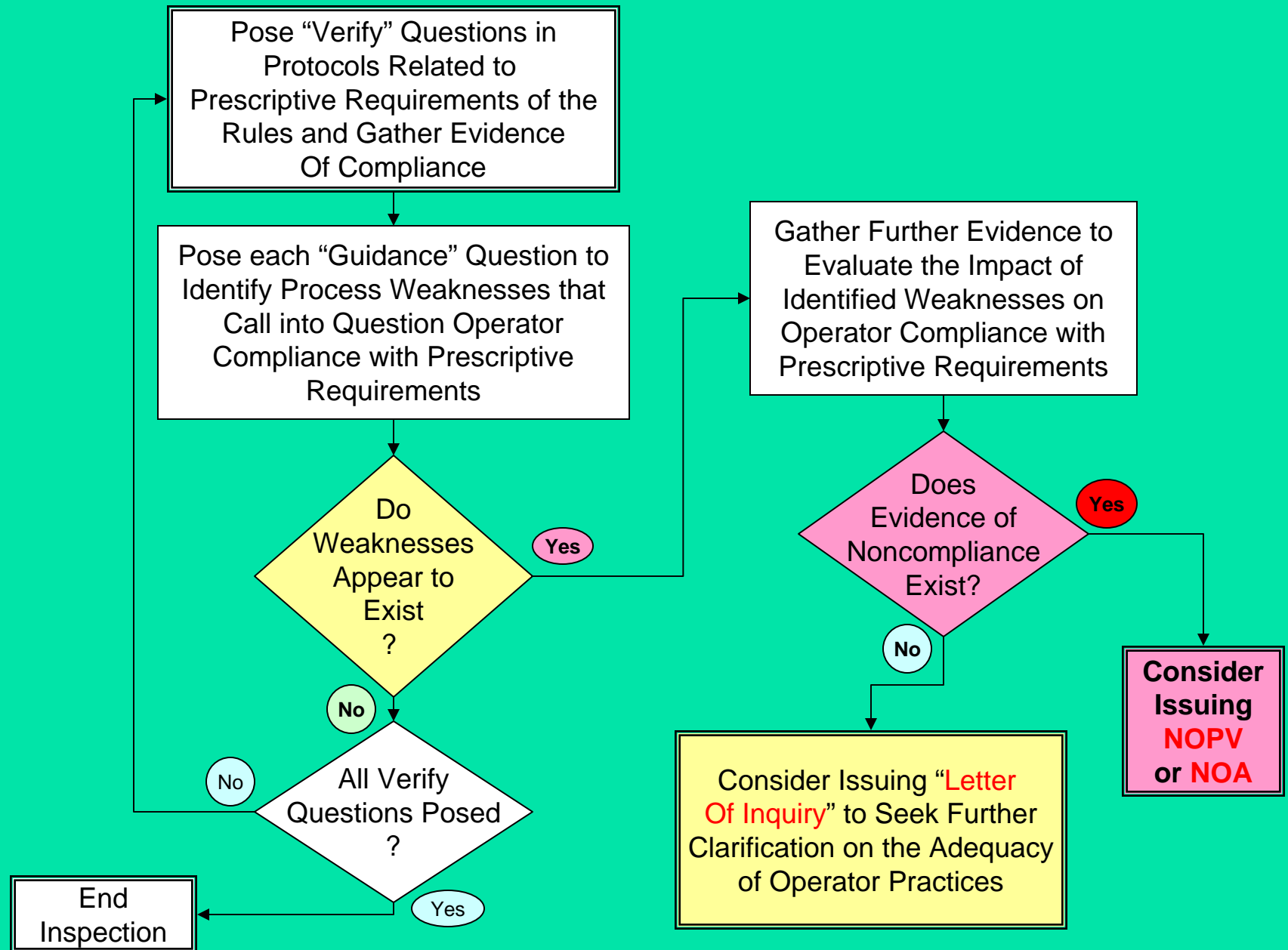
- The Role of Protocols
 - Used to Support Inspectors in Evaluating OQ Programs
 - Structured into “Protocol Questions”, most which are paired directly with prescriptive requirements of the rule



Statement on the Use of OQ Protocols

- The Role of Protocols – Cont'd
 - “Enforceable” and “Non-Enforceable” Indicators (Only Prescriptive Requirements are Enforceable)
 - “Guidance Topics”
 - Expected Characteristics of an Effective OQ Program
 - Guidance Topics are Consistent with the Intent of the Rule

OQ Inspection and Enforcement Approach





Observations from Initial Inspections: Findings (1)

- Programs Varied Considerably in **Maturity**
- Significant Differences in Number of Covered Tasks (**Use of Sub-Tasks**)
- Significant Differences in Tasks Deemed to be “Covered” (**Definition Dependent**)



Observations from Initial Inspections: Findings (2)

- Significant Differences in Degree of Integration of OQ Program with Other Management Systems Already in Place
- Program “Performance Measures” are Typically Immature
- Many Programs tended to “parrot” rule Requirements without thinking through Procedures to Implement Program



Observations from Initial Inspections: Findings (3)

- Operators Place Significant Responsibilities on Front-Line Supervisors for Success of OQ Program
- Absence of Evaluation Criteria, Qualification Documentation and Related Methodologies in Programs “set up” Supervisors for Failure



Observations from Initial Inspections: Findings (3)

Operators Differed in Treatment of Some "Outstanding Issues":

- O&M Activities vs. "New Construction" (A "Definition" Problem...)
- Excavation over Loaded Pipelines
- Inclusion of Emergency Response Tasks
- Integration of **Training** documentation into the OQ Program



Observations from Initial Inspections: Findings (4)

Operators Differed in Treatment of Some "Outstanding Issues":

- AOCs (Task-Specific often Integrated into Individual Tasks & Evaluations; Generic AOCs then Treated Separately – or Not Addressed in some cases)
- Virtually No Formalized and Documented Methodology to Identify new AOCs from "near-miss" Reporting, where such Existed



Observations from Initial Inspections: Findings (5)

Operators Differed in Treatment of Some "Outstanding Issues":

- Specific Guidance on Span-of-Control (for Use of **Non-Qualified** Individuals)
- Identifying Persons Contributing to Incident/Accident:
 - **Immediate** Contribution (easier)
 - **Delayed** Contribution (harder)



Observations from Initial Inspections: Findings (6)

Most Operators Have Treated Some
“Outstanding Issues” Similarly:

- KSAs (Knowledge, Skill, and Ability)
usually Addressed - either in
Evaluation or in “Pre-Qualification”
for Evaluation



Observations from Initial Inspections: Findings (7)

Most Operators Treated Some "Outstanding Issues" Similarly:

- Justification for **Reevaluation Intervals** was "Subjective" (No Evidence Provided tying Quantitative Performance Measures to the Established Intervals)
- Tendency to (Try to) Place the Compliance Burden on **Contractors** (by Contract)



Observations from Initial Inspections: Findings (8)

- Discomforting use of “WPHR”
(Work Performance History Review)
to “Pre-Qualify” Individuals – OPS calls
this practice “Evaluation Light”

(Will Assess Impact in Field Verifications)



Observations from Initial Inspections: Findings (9)

- Rigor of **Contractor Qualification** Varied Considerably, Leading to Strong Concern about Adequacy of Operator's Contractor Qualification Procedures (Will Assess Impact in Field Verification)
- Many Operators did not Consider **Replacement** of "out-of-service" Pipelines as O&M (a "Pipeline Facility" definition problem)



Observations from Initial Inspections: Findings (10)

- Rigor of **Evaluator Credentialing** (or Selection) has Varied Considerably
A Significant Issue when Evaluation Depends on Expertise of Evaluator (e.g., Evaluation of Performance)
- Insufficient Level of Detail in **Evaluation Process** - Leads to Questionable Qualifications



Observations from Initial Inspections: Findings (11)

- Management of Change:

Guidance is Needed (and Often Provided) on defining

- Significance of Change
- Corresponding Impact on Qualification
- Required Action to Retain Qualification



Observations from Initial Inspections: Findings (12)

- Large Variations in Plans to **Evaluate** Program Effectiveness, Ranging from:
 - No Specific Plan to Review Program
 - Formally Review Program “as needed” and Assignment of Responsibility for Periodic Program Review



What's Next?

- OPS will be publishing an NPRM to amend the OQ regulations to provide for Operator Compliance with the Pipeline Safety Law:
 - Operators will provide training, as appropriate, to ensure that individuals performing covered tasks possess the necessary knowledge and skills.
 - Operators will document the basis on which re-evaluation intervals were established.
 - Operators will notify OPS when an OQ Program (that has been inspected) is modified “significantly”; OPS will verify (evaluate) said modifications.